

ATLANTIC AND GREAT WESTERN CANAL.

MEMORIAL AND ARGUMENT

OF

B. W. FROVEL,

IN BEHALF OF

The Atlantic and Great Western Canal.

JANUARY 18, 1873.—Referred to the Committee on Commerce and ordered to be printed.

*To the honorable Senate and House of Representatives of the United States
in Congress assembled :*

The task devolves on me of pleading before you in behalf of a measure whose benefits will be felt, not only in our own section, but, indeed, in every portion of this our common country.

For years past, even from the formation of the Federal Government, the importance of connecting the waters of the Mississippi Basin with the Atlantic has been felt and appreciated, and measures adopted looking to the accomplishment of this object. General Washington clearly saw its importance to the country, and urged its construction with a force of reasoning that at this distant day remains unanswerable. He, however, saw in it only the surest means of stimulating the development of those rich valleys which lie along the Mississippi and the Ohio and their tributaries. But as the country became settled—as those valleys began to teem with the first fruits of that vast agricultural wealth which is to-day the wonder of the civilized world—it became evident that it was a necessity that, sooner or later, would force itself upon the attention of the Federal Government. Hence we find that so early as 1819 Congress was earnestly called upon to look into this matter, and at the opening of the session, in 1823, Mr. Monroe, in his message, thus refers to it:

“They, the people, (said he,) are of opinion that the waters of the Chesapeake and the Ohio may be connected together by one continued canal, and at an expense far short of the value and the importance of the object to be obtained. If this could be accomplished it is impossible to calculate the beneficial consequences which would result from it. A

great portion of the produce of the very fertile country through which it would pass would find a market through that channel. Troops might be moved with great facility in war, with cannon and every kind of munition, and in either direction. Connecting the Atlantic with the western country, in a line passing through the seat of the national Government, it would contribute essentially to strengthen the bond of union itself. Believing, as I do, that Congress possesses the right to appropriate money for such a national object, (the jurisdiction remaining to the States through which the canal would pass,) I submit it to your consideration." (House Journal, 1823 and 1824, pages 19 and 20.)

It appears from the journals of that date that this subject did receive consideration, and that these deliberations resulted in—

An act appropriating \$30,000 for the survey of canals and roads, approved April 30, 1824.

An act authorizing the State of Indiana to open a canal through the public lands connecting the Wabash and Miami, approved May 26, 1824.

An act authorizing the survey of a route for a canal connecting the Atlantic and the Gulf of Mexico, approved March 3, 1826.

An act authorizing Pennsylvania to construct a canal through the public ground near the city of Pittsburgh, approved April 14, 1826.

An act authorizing a subscription of \$100,000 to the Louisville and Portland Canal, approved May 13, 1826.

An act authorizing a subscription to the Dismal Swamp Canal of \$60,000, approved May 18, 1826.

An act granting land to the State of Indiana for a canal to unite the Wabash river with Lake Erie, approved May 2, 1827.

An act granting land to the State of Ohio to extend the Miami Canal from Dayton to Lake Erie, approved May 24, 1828.

An act authorizing a subscription of stock to the Delaware and Chesapeake Canal of \$75,000, and \$20,000 additional subscription to the Dismal Swamp Canal, approved March 2, 1829.

An act authorizing an additional subscription to the Louisville and Portland Canal of \$135,000, approved March 2, 1829.

An act granting land to the State of Ohio to aid in the construction of canals, approved April 2, 1830.

An act authorizing the State of Alabama to contract for and construct a canal around the Muscle Shoals, approved February 12, 1831.

An act granting lands to the State of Indiana for the Wabash and Erie Canal, approved May 29, 1830.

An act authorizing the Territory of Florida to open a canal through the public lands, approved May 2, 1831.

An act providing for the survey of a canal-route from Saint Andrew's Bay to the Chattahoochee and Pensacola Bay, and along the northern coast of the Gulf of Mexico, approved July 4, 1832.

An act granting land to Illinois for a canal to connect the Illinois River with Lake Michigan, approved March 2, 1833.

An act granting land to Indiana for the Wabash and Erie Canal, approved February 27, 1841.

An act granting additional lands for the same purpose, approved March 3, 1845.

An act granting land to Ohio for the Wabash and Erie Canal, approved June 30, 1834.

An act granting land to the Illinois and Rock River Canal, approved June 18, 1838.

An act granting land to Wisconsin for breakwater, harbor and ship-canal, approved April 10, 1866.

An act granting land to the St. Mary's ship-canal, Michigan, approved August 26, 1852.

An act granting lands to the Portage Lake and Lake Superior ship-canal, approved March 3, 1865.

An act granting additional land to same, approved July 3, 1866.

An act granting lands for a canal to connect Lake Superior with Lac La Belle, approved July 3, 1866.

Since then the Des Moines Canal, the Fox River and Green Bay Canal, the canal around Sauk Rapids, the Illinois and Michigan Canal, and other works of a similar character have received Federal aid, either by grants of land or by appropriations of money made directly from the Treasury. As early as 1809 we find that an appropriation was made for the opening of a canal from Lake Pontchartrain to the Mississippi, as a defensive measure. These several acts, extending through every administration, from that of Mr. Madison down to the present time, would seem to show that it has always been the policy of the Government to aid and foster these enterprises, as not only necessary and contributing to the national defense, but essential to our commercial prosperity. The acquisition of Louisiana and the consequent opening of the mouth of the Mississippi, the construction of the Erie Canal, and the invention of railroads, for a time at least, seemed to meet the commercial needs of the country, and to these causes must be added the high prices of bread-stuffs, incident to the long-continued continental wars, and to the policy adopted by Great Britain. That policy was to make herself independent in the matter of food by the enactment of what is known as her corn-laws. The enforcement of these laws resulted in the increased cost of production, and this reacted seriously upon her manufacturing interests. The cheaper food of the continent enabled the west European nations to come into successful competition with her, and this could be prevented only by equalizing the cost of food, and, consequently, the cost of production. The United States and the Russian provinces lying along the Black Sea were, and are to-day, the great grain-producing sections of the world. These furnished the European manufacturer with bread. But to reach a market the only outlet for this Black Sea trade was through the Turkish Empire and under the guns of Constantinople. Turkey claimed the right to exact a duty upon all goods passing through this channel. In this matter she was sustained by England, and their joint efforts virtually closed up the Black Sea. This left the control of the grain trade, in a great measure, to the United States, and for a time gave her wonderful prosperity. But in time Russia became restless under this state of affairs, and the Czar declared his intention of administering upon the estate of the "sick man," as he facetiously termed the Turk. The policy of England could not permit this. To go to war for the purpose of keeping up the price of bread was not a popular idea, and consequently the British press rang with the cry that Russia's designs upon Turkey meant the East Indies and the upsetting of the balance of power in Western Europe. War—the Crimea, Sebastopol, the destruction of the Russian fleet—followed, and the Czar consented to the virtual closing up of the Black Sea. But another power was at work greater than Turkey, England, or Russia. Science pointed out the way to connect the Danube with the Rhine. The Ludwig Canal was built, and an outlet opened from the Black Sea through the heart of Western Europe that England could not control. The rich harvests of Wallachia and Moldavia were

cheaply transferred from the grain-fields of the Caspian to the great manufacturing centers of Europe. The policy of England was defeated, her corn-laws abolished, and with their disappearance from the statute-books Russia's designs upon India have been forgotten. But the result was very serious to the United States in this, that it at once transferred the grainaries of Western Europe from her to the Black Sea provinces, and that trade is still lost to us, owing to the want of a cheaper outlet to the sea for the grain-product of our Western States.

That some certain, safe, and cheaper mode of transportation between the different sections of the country has become an absolute and pressing necessity, is a fact that becomes evident, when we remember that the three geographical divisions of the Union differ widely in climate, pursuits, and products. The West is an agricultural region, with staples so bulky that they are unable to bear the charges exacted on long lines of railroad. Yet those products are not only needed by the other sections, but are absolutely necessary to their prosperity and well-being. The Eastern and Northern States devote their energies principally to mining, manufacture, and commerce, while to the South belongs the production of cotton, sugar, and rice, articles of such common use that they are classed among the necessities of life. That the free interchange of articles so widely different in character, and yet so essential to our wants, would produce a more rapid development of our internal commerce and result in mutual benefit is self-evident, and needs no demonstration. Everybody knows that the great need of the West is a market for the surplus food, which she produces in such vast quantities that it cannot be disposed of profitably, but remains worthless and wasting upon the hands of the producer, depriving labor of half its reward, discouraging industry, and paralyzing enterprise. Nor is the result of this need upon the manufacturing interests of the Northern and New England States less deplorable. Cheap food makes cheap labor, and cheap labor is the life of manufacture in this age of commercial competition. Without it these interests can never reach that state of development which will make us not only independent at home but will enable us to become successful competitors in foreign markets. This is true of the South also. Dependent upon the West for her supply of food, the great staples which enter so largely into both our domestic and foreign commerce are annually decreasing because the cost of living is so great that their production has, in a measure, ceased to be a profitable pursuit. Instead of raising cotton, sugar, and rice, for which both soil and climate are eminently adapted, and in which she should find her most profitable employment, large areas are devoted to the production of food, the result of which barely feeds the producer, adds nothing to our general commercial advancement, deprives the West to that extent of a market, and forces us to look abroad for articles of prime necessity, which might be produced cheaper and in greater abundance at home. But the price of food regulates the price of labor, and when the cost of the one equals the product of the other, interests dependent upon it must languish. Hence we find, when legislative protection is withdrawn, the mills and furnaces working on half-time, embarrassed or stopped, while the importation of the articles they manufacture is vastly increased. This is due solely to the cost of production, and this cost without protection will not permit a successful competition, even in our home market, and precludes the hope of competition in foreign marts. The manufacturing operative, the miner, and the artisan are driven to agriculture for a support; the South devotes her capital, lands, and labor to the production of bread to feed her people, and the West, with a surplus of grain on hand sufficient to

feed not only this country, but the greater portion of Western Europe, goes abroad for iron, sugar, and manufactured articles, her surplus food remaining the meanwhile worthless and wasting upon the hands of the producer because the cost of carriage East or South exhausts the value of the article before it reaches a market. These are grave questions, and they demand, not only an inquiry into the cause of the evil, but the proper remedy to be applied.

I have discussed this question at some length, because I am satisfied that a very unjust prejudice exists in a large portion of the country, and especially in the agricultural districts, against the cotton manufacturer of New England and the iron manufacturer of Pennsylvania, from this very cause. They are charged with avarice and a sordid desire for unjust gain at the expense of the South and West, when the fact is, a real necessity forces them to demand legislative protection. But the South sees only that her interests are failing, while she is heavily taxed upon the manufactured products of her own labor; and the West that she is without a market, and has to pay what she deems unreasonable prices for the products of other sections; while the manufacturer can never hope to secure a foreign trade so long as he is forced to ask for protection at home. The recommendations contained in the President's message meet all these points, and if carried out will relieve the country of a cause of discontent that is almost universal. He clearly understands the nature of the evil and its remedy, and that remedy he tells us is cheap transportation, and that this can only be effected by lines of water communication.

The present outlets from the West to the sea are by the Mississippi River, the lakes, and Erie Canal. The needs of commerce have outgrown the Erie Canal, and this fact finds utterance in the constant demands of the West for other and more commodious lines of water-transportation. Its inadequacy is due in a great measure to the fact that it is closed by ice five months in the year, and that, too, at the time when the farmer in the West most needs it. The route by the Mississippi is long and expensive, and farm-produce shipped by it is liable to serious loss from the humidity of the semi-tropical climate through which it passes. But there is another serious objection to these routes, and one that demands a serious consideration. They both lie beyond the limits of the United States, and in case of foreign war would be obstructed, if not entirely closed, leaving to our foes the power of interrupting not only our foreign commerce, but of obstructing and destroying our internal trade.

These facts point to the absolute necessity of interior lines of water-communication between the great producing sections if we would render ourselves independent in peace and give security to our domestic trade in times of war. Two routes present themselves, both feasible and both possessing marked advantages over those already named. One of these routes is through Virginia to Norfolk, the other through Georgia to Savannah or Brunswick. The merits of the Virginia route have been so fully and ably discussed that it needs no comment here. To the Georgia route our attention is just now more particularly directed. This route follows the natural channel of the Tennessee to Guntersville, in Alabama, where a narrow neck of land separates the Tennessee from the Coosa. Across this isthmus a canal thirty miles long is all that is needed to open navigation, on the one hand to the Gulf of Mexico, and on the other to Rome, Georgia. From Rome the route follows the Etowah River to a point where it is feasible to connect this stream with the Ocmulgee, and thus open an uninterrupted water-line from the Missis-

issippi to the Atlantic. This route has been surveyed by skillful engineers, under the direction of the War Department, and pronounced eminently feasible. The engineer reports further that it will have an abundance of water in summer; will never be closed by ice in winter; that it is shorter, cheaper, and more direct than any existing or proposed route; that produce shipped by it will not suffer damage from heat, moisture, or other climatic causes, and that its cost will be insignificant when compared with the gigantic results to be obtained. It will open not only a new, more extensive, and annually increasing market for the surplus products of the West in the cotton States, but will furnish a cheaper route for the food-supply of the North and New England, especially during the winter months, enabling the manufacturer to command the home market and to compete successfully abroad. It will build up the South, enabling that section to produce cheap rice, cheap sugar, and cheap cotton in quantities sufficient to meet the increasing demand. It will give to the West an outlet such as she has long and ardently desired, and will enable us once more to control the grain market of Western Europe. It will be free and uninterrupted in peace and safe in war. For these reasons it is unquestionably national in its character.

The bill before the committee asks the aid of the General Government to this great work, not by a donation of money or lands, but simply a guarantee for the payment of the interest upon a limited amount of the company's bonds. By the bill this company proposes to build ten miles of the canal, at a cost probably of \$1,000,000, and then to give the United States Government a mortgage upon the same, with power to sell work at any time that the interest remains unpaid for thirty days after it is due, as security for a risk that will not exceed \$60,000, and so on for each ten miles until the work is completed. The granting of this aid involves no liability to the Government, does not increase the national debt, or add one cent to the national taxation; but it will be the source of vast wealth, both public and private, and will give us a national security which we have not hitherto possessed.

The question has been frequently asked, Why was not a grant of land or land-scrip asked for this object? We answer, because such a grant would benefit only the corporation to which it was donated, while on the other hand the guarantee would benefit all our people in this. The result of the war left us with our labor system overthrown, our farms and homes desolated, our people impoverished, our principal commercial marts in ruins, and our credit, public and private, hopelessly impaired or utterly destroyed. Since then the honest efforts of our people to re-instate these have in a measure failed, because the uncertainty which surrounded us either frightened capital away, or else it came burdened with what may be aptly termed "war risks," and this has produced a degree of stagnation in every department of industry which twenty years of patient labor, as the chairman of this committee justly remarked, will not suffice to wipe away. The indorsement, however, will carry upon its face to the money-lender, and especially if he be a foreigner, the evidence that war and contention no longer exist, but that peace and her handmaidens, *progress* and *prosperity*, have once more returned to our land.

There is another view of this question which must commend it to the hearty approval of every one who desires that we should once more become a united, happy, and prosperous people. There is no tie between individuals or States that binds them so firmly together as that of mutual interest. Unite Norfolk and the James River with Cincinnati and the Ohio, and you will make the interests of all that section identical.

Unite Savannah and the rivers of Georgia and Alabama with Saint Louis, the Mississippi, and the West, by means of the Atlantic and Great Western Canal, and you will not only create a mutual interest, but will knit those sections together in a bond so strong that foreign foe can never shake it, and one that internal strife will not disturb, because the bond is that of peace and good-will toward each other.

B. W. FROBEL,
President of the Atlantic and Great Western Canal.

APPENDIX.

The census of 1870 shows that Georgia, Alabama, South Carolina, and Florida, the States which will be directly affected by the construction of this canal, have an aggregate population of 3,074,455. According to the same authority these States produced of—

| | Bushels. |
|------------|------------|
| Wheat..... | 3,136,000 |
| Corn..... | 51,092,000 |
| Oats..... | 2,837,000 |
| Rye..... | 150,600 |
| Total..... | 57,215,600 |

We find from the tables furnished by the Bureau of Statistics that the average consumption of grain in the United States for the past twenty-two years has been 34 bushels per capita. This, in the four States mentioned, would amount to 104,521,470 bushels, and leave a deficit of 47,305,870 bushels to be supplied by other States. As the greater portion of this grain is used in the sea-board sections of those States, we might assume the distance from Saint Louis to Savannah (nine hundred and sixty miles) as the average distance that this grain is moved. This would make the cost \$14.40 per ton. Major McFarland's report gives the cost by the proposed canal at \$4.88 per ton for the same distance—that is, from Saint Louis to Savannah. That would be a saving of \$9.52 upon each ton, and an aggregate of \$13,647,024.72, to be divided between the producer and the consumer, and this upon the single article of grain. Were beef, pork, bacon, salted meat, butter, potatoes, cheese, apples, and many other things which we buy from the West added, it would probably double the amount named. These States produce also of sugar, 2,682 hogsheds; rice, 172,232,812 pounds; cotton, 1,167,705 bales. The number of bales nearly equals half the cotton product of the United States. In value it exceeds half if what is known as sea-island cotton is included in this estimate. The production of sugar is becoming an important interest in Florida and the southern portion of Georgia. The climate and soil of this section are well adapted to the culture of sugar-cane. The great need is cheap food, which the opening of this canal would supply. The census gives the average price of corn in these States at 97 cents per bushel and wheat at \$1.91. In many counties, and especially in the cotton-belt, corn is seldom less than \$1.50 per bushel, and often above \$2 per bushel.

The value of the cotton crop in these States is probably not less than \$144,000,000. Some definite idea may be formed of the immense importance of this canal to this section when we remember that if the building of it results in lessening the cost of food 50 per cent., it will at once double the value of all capital employed in the production of rice, sugar, and cotton.

Nor is its importance of less value to other States. The lessening of the cost of food 50 per cent. would at once force our lands into cotton. This, with the present population, would open a market for the West of not less than 104,000,000 bushels of grain annually—a sum greater than our whole foreign export. The cost of production being lessened, it would at the same time enable the cotton-grower to furnish cotton at greatly reduced prices.

We find that Tennessee, Kentucky, Missouri, Illinois, Nebraska, Kansas, and Iowa produce 49,710,129 bushels of wheat and 354,243,986 bushels of corn. Admitting that only one-half of this amount could be spared to exportation, there would be saved in the transportation \$41,000,000 annually, to be divided between the producer and consumer. Adding this to the saving upon other articles, such as bacon, salted meats, iron, lumber, salt, lime, coal, and many other articles, we might safely set down the sum at double the above amount. This would make an annual aggregate saving of about \$82,000,000 on the transportation, besides opening a great market not now en-

joyed by that section. In the "Memorial of the Louisville and Cincinnati commercial conventions to the Congress of the United States," I find the following facts:

Distance from Saint Louis to New York and Liverpool.

| | Miles |
|---|-------|
| From Saint Louis to New York by way of the Illinois and Michigan Canal, the lakes and Erie Canal..... | 1,950 |
| From New York to Liverpool..... | 3,150 |
| Total distance..... | 5,100 |
| From Saint Louis to New Orleans..... | 1,270 |
| From New Orleans to Liverpool..... | 4,756 |
| Total distance..... | 6,026 |
| From Saint Louis to Savannah by proposed canal..... | 1,508 |
| From Savannah to Liverpool..... | 3,390 |
| Total distance..... | 4,898 |

This would make the route by Savannah 210 miles less than that by way of New York, and 1,136 less than by way of New Orleans.

I find by the same tables that the cost of a ton of produce from Saint Louis by way of New York to Liverpool is \$11.77½; from Saint Louis to Liverpool by way of New Orleans it is \$13.91.

| | |
|--|--------|
| By Colonel McFarland's report it will cost by the proposed canal to transport a ton of freight from Saint Louis to Savannah..... | \$4 88 |
| From Savannah to Liverpool..... | 4 23.7 |
| Total..... | 9 11.7 |

This would be \$2.65.8 less than by way of New York and \$4.79.3 less than by way of New Orleans, or a saving of about 8½ cents upon each bushel of grain over the cheapest route now open.

Major McCalla, one of the engineers in charge of the recent survey of this line, after giving the cost of the construction of the proposed canal at \$16,703,184, says:

"This estimate is based upon a scale of liberal prices, and the quantities and classification of material from estimates in detail of full average portions of the different sections. It is sustained from close observation of the general character of the country as the survey progressed, and I feel sure in presenting it that you have been furnished with a sum rather in excess than under the actual cost. It must be apparent to every one at all familiar with such subjects that these preliminary examinations cannot be regarded as even approximating a definitive location. On the contrary, the sum set apart for this work and the time given in which to perform it admitted of the tracing of one continuous line only. I have established in my mind one indelible fact, however, that the Georgia canal project is feasible, and that on the line as developed it can be substantially constructed for the above amount, or say, in round numbers, \$17,000,000."—(See report of Secretary of War, 1872, vol. 2, pages 531, 532.)

In speaking of the route Major McFarland, United States Engineer Corps, in his official report says, (Report of the Secretary of War, 1872, pages 518, 519:)

"The arguments and reasons which may be advanced in favor of opening this route need scarcely be more than alluded to here, for they have a common application to all the routes which have been or can be suggested for connecting our great grain-producing region with our seaports, have formed a certain and unfailing subject of discussion at all the commercial conventions which have been held in this country for years, and have attracted the attention of nearly every board of trade and chamber of commerce of any consequence in the land.

"This is quite sufficient to show that it is a real necessity which underlies this movement; a necessity born of the fact that the enormous increase of population in the valleys of the Mississippi and its tributaries has caused the production of grain to far outstrip the means of its transport. The old routes by water and rail are crowded to their fullest capacity, and either new routes must be formed or the result of the farmer's labors must remain useless upon his hands.

"Beyond certain distances the cost of transportation to a market eats up the producer's profits and makes it useless for him to ship his crops. This occurs much more

quickly by rail than by water, the cost of transportation by rail being from five to six times as much as by river, and about three times as much as by canal. In looking for new outlets for the grain crops, then, water-routes are to be preferred. The only water outlets which the Mississippi Valley now has are the river itself and the canals which connect it with the great lakes. The geographical position of the Ohio and Tennessee Rivers in relation to the rivers which flow into the Atlantic will afford, however, at a comparatively moderate expenditure, two other outlets more direct than those by the Mississippi and the lakes, and possessing other advantages not enjoyed by either of these.

"It is with the latter only that this report is concerned, and it may be said for it that, while it enjoys every advantage possessed by the others, it is superior to them all in this, that it will never be obstructed by ice; will never be rendered impassable by drought; does not descend sufficiently low into the heated region to have its cargoes injured by heat or moisture; will require no rehandling of cargo between the points of shipment and discharge, and will cost but little more than the Erie Canal enlarged, while its capacity will be greater, and no doubt it will, like the Erie Canal, pay for the original outlay, interest, expenses of repair, and service, with a large balance to its credit in the course of thirty years.

"Taking Saint Louis (which has become and is likely to remain the center of trade of the Mississippi Valley) as a starting-point, the distance by this route to an Atlantic shipping-port, Brunswick, Georgia, is fifteen hundred and eight miles by careful measurement, three hundred and sixty-five of which consist of canal and slack-water navigation, and the remaining eleven hundred and forty-three miles of river navigation.

"From St. Louis to New York, by way of the Illinois and Michigan and Erie Canals, is nineteen hundred and sixty miles, and by way of the Portsmouth and Ohio and Erie Canals it is eighteen hundred and thirteen miles. These two distances are taken from the Report of the Committee of the National Board of Trade on a Continuous Water-Line of Transportation through Virginia, printed at Richmond, Virginia, in 1869.

"The difference of distance in favor of the Brunswick route to a port is three hundred and five miles, about one-sixth of the whole distance to New York, and as the saving in distance is entirely by river, over which the actual cost of transporting freight is about three mills per ton per mile, the saving of cost from this cause alone equals $91\frac{1}{2}$ cents per ton. Three transfers of cargo are saved, which amounts to 30 cents a ton more; and as the Ohio route includes about three hundred miles more of canal than the Brunswick route, over which the difference of cost of transportation is not less than two mills per ton per mile, equal 60 cents, the total saving in cost by the Brunswick route is $\$1.81\frac{1}{2}$ per ton, or about $5\frac{1}{2}$ cents per bushel."

"Nothing has been said of the probable effect which the opening of this route would have upon the development of the exceedingly rich mineral region through which it passes; nor of its stimulating effect upon the energies of the people, who have been impoverished, and to some extent disheartened, by the trials of the late war; nor of the influence which commerce, the great peace-maker, would surely exercise in removing from the minds of citizens of different sections of our common country so brought into contact the feelings of prejudice which too often prevent them from seeing how much there is in each other that deserves admiration and respect. These are matters that pertain rather to the province of the statesman than to that of the engineer, and to the statesman I leave their discussion.

"I had hoped to incorporate in this report the statistics gathered by the last census bearing upon the subject of internal water communications, but I have not yet received them. I hope, however, to get them in time to insert them in my annual report for this year.

"Very respectfully, your obedient servant,

"WALTER MCFARLAND,
Major of Engineers."

"Brigadier-General A. A. HUMPHREYS,
Chief of Engineers, Washington, D. C."

We find in the same report, page 624, the following statement:

"But there is one great pressure lying on the free development of the South. While the North has since 1860 never stopped its activity and progress; has received improvement after improvement; while harbors and rivers were improved, ship-canals dug, &c., nothing has been done for the South; its harbors have been filled up; its rivers have become wild streams; it has nothing but a few badly-managed railroads, which exert a shameless monopoly, and which, as long as the country is confined to them alone, must by their tremendous rates necessarily produce a pressure much felt by trade and industry. Therefore, free, public, natural routes of communication and transportation are the great want in the South."

The opening of this canal will not only give an outlet to the Atlantic for the 16,500

miles of inland navigation embraced in the term "Mississippi River and its tributaries," but will also connect it with 5,000 miles of similar navigation, penetrating every portion of the four States already mentioned. More than one-half of this is natural, and the remainder can be made available by a reasonable expenditure.

The uniting of these two vast systems of navigation, which may be aptly termed "inland seas"—and upon whose margin products so widely different in character grow—is a matter of such evident importance to the prosperity of the country that it needs no discussion. That it would in a short time double the production of cotton is also true, and will open a market to the grain and food producing sections more than double the value of that which we now find in foreign countries.